

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for changing channel information in a digital TV receiver, the method comprising:

determining a changed channel information of being changed from a broadcasting signal received at every preset time interval intervals and storing the changed channel information, wherein determining the changed information includes:

determining whether a PMT parsing is an initial program map table (PMT) parsing;

storing PMT information in a first database when the PMT parsing is the initial PMT parsing and storing changed PMT information in a second data base when the PMT parsing is not the initial PMT parsing; and

comparing the stored changed channel information and channel information stored already, for updating the channel information, wherein the comparing includes comparing a first channel list and a second channel list to determine added channels or canceled channels, and updating the channel information.

2. (Currently Amended) The method of claim 1, wherein the determining step ~~further comprises determining a version change of the received broadcasting signal of being changed.~~

3. (Previously Presented) The method of claim 2, wherein determining a version change of the received broadcasting signal comprises:

parsing PAT information from a transport stream; and

checking a version number in the parsed PAT information to determine the version change.

4. (Currently Amended) The method of claim 1, further comprises determining ~~whether a repeater of being has been switched if it is ~~found~~ determined that the channel information is changed, to store the changed channel information.~~

5. (Currently Amended) The method of claim 4, wherein ~~the step of determining whether a repeater of being has been switched further comprises:~~

storing the changed channel information ~~if when it is ~~found~~ determined that the repeater is not ~~changed~~ switched~~; and

maintaining existing channel information ~~if when it is ~~found~~ determined that the repeater is ~~changed~~ switched.~~

6. (Currently Amended) The method of claim 1, wherein ~~the step of storing the~~ changed information ~~further comprises:~~

starting a program association table (PAT) parsing;

determining whether the PAT parsing ~~conducted presently of being is~~ an initial PAT parsing;

storing each channel information in ~~a~~ the first data base to form a first channel list; ~~if~~ when it is ~~found~~ determined that the PAT parsing is the initial PAT parsing ~~as a result of the determination~~; and

clearing the first channel list, and storing the changed channel information in a second data base, to form ~~a~~ the second channel list, ~~if~~ when it is ~~found~~ determined that the PAT parsing is not the initial PAT parsing ~~as a result of the determination~~.

7. (Currently Amended) The method of claim 1, wherein the determining step further comprises:

~~determining the PMT parsing conducted presently of being an initial program map table (PMT) parsing;~~

storing the PMT information in ~~a~~ the first data base, and providing a PMT completion signal; ~~if it is found that~~ when the PMT parsing conducted presently is the initial PMT parsing ~~as a result of the determination~~; ~~if it is found that~~ and when the PMT parsing conducted presently is not the initial PMT parsing ~~as a result of the determination~~, storing the changed PMT information in ~~a~~ the second data base; and

~~comparing a first channel list and a second channel list, to check added or canceled channel, updating the channel information upon completion of the channel check, and providing a PMT completion signal.~~

8. (Currently Amended) The method of claim [[7]]1, wherein the determining step further comprises providing a program guide message (PMM) information processing command after storing the PMT information in the first data base.

9. (Currently Amended) A method for changing channel information in a digital TV receiver, the method comprising:

storing a first channel list in a first data base;

determining, at preset time intervals, whether channel information has been changed by analyzing a received broadcast signal;

storing a recent version of the channel information ~~if~~ when it is determined that the channel information has been changed, wherein storing the recent version includes storing a second channel list in a second data base; and

updating the channel information by comparing the stored recent version of the channel information with a previous version of the channel information, wherein updating the channel information includes comparing the first channel list with the second channel list to determine added channels or canceled channels.

10. (Previously Presented) The method of claim 9, wherein it is determined whether channel information has been changed by analyzing a version of the received broadcast signal.

11. (Previously Presented) The method of claim 10, wherein analyzing a version of the received broadcast signal comprises:

parsing program association table (PAT) information from a transport stream; and
checking a version number in the parsed PAT information to determine if the version of the received broadcast signal has changed.

12. (Currently Amended) The method of claim 10, wherein determining whether channel information has changed further comprises determining if a repeater has been switched ~~if~~ when it is determined that a version of the received broadcast signal has changed.

13. (Currently Amended) The method of claim 12, wherein ~~the step of determining whether channel information has changed further comprises:~~

determining that channel information has changed ~~if~~ when it is ~~found~~ determined
that the repeater has not been switched; and

determining that channel information has not changed ~~if~~ when it is ~~found~~ determined that the repeater has been switched.

14. (Currently Amended) The method of claim 9, wherein the step of storing a recent version of the channel information comprises:

starting a program association table (PAT) parsing;
determining whether a present PAT parsing is an initial PAT parsing;
storing information on each channel in ~~a~~the first data base to form ~~a~~the first channel list, ~~if~~ when it is determined that the present PAT parsing is an initial PAT parsing; and
clearing the first channel list, and storing the recent version of the channel information in ~~a~~the second data base, to form ~~a~~the second channel list, ~~if~~ when it is ~~found~~ determined that the present PAT parsing is not an initial PAT parsing.

15. (Currently Amended) The method of claim 14, further comprising:
providing a program map table (PMT) parsing start command upon completion of the PAT parsing;
determining whether a present PMT parsing is an initial (PMT) parsing;
storing PMT information in the first data base, and providing a PMT completion signal, ~~if~~ when it is determined that the present PMT parsing is an initial PMT parsing;
~~if~~ when it is ~~found~~ determined that the present PMT parsing is not an initial PMT parsing, storing PMT information in the second data base; ~~and~~
~~comparing the first channel list with the second channel list to check added or canceled channels;~~

updating the channel information upon completion of the comparison of the first channel list and the second channel list; and
providing a PMT completion signal.

16. (Previously Presented) The method of claim 15, further comprising providing a program guide message (PMM) information processing command after storing the PMT information in the first data base.

17. (Currently Amended) The method of claim 13, wherein ~~the step of~~ storing a recent version of the channel information comprises:

storing the recent version of the channel information ~~if~~ when it is determined that the channel information has changed; and

maintaining a previous version of the channel information ~~if~~ when it is determined that the channel information has not changed.

18. (Currently Amended) A computer program embodied on a computer-readable medium for changing channel information in a digital TV receiver, wherein the computer program, when executed by a computer, performs ~~the steps of~~ a method comprising:

storing a first channel list in a first data base;

determining, at preset time intervals, whether channel information has been changed by analyzing a received broadcast signal;

storing a recent version of the channel information ~~if~~ when it is determined that the channel information has been changed, wherein storing the recent version includes storing a second channel list in a second data base; and

updating the channel information by comparing the stored recent version of the channel information with a previous version of the channel information, wherein updating the channel information includes the first channel list with the second channel list to determine added channels or canceled channels.

19. (Currently Amended) The computer program of claim 18, ~~wherein the step of~~ determining, at the preset time intervals, whether channel information has been changed comprises:

demultiplexing a transport stream to extract program association table (PAT) information;

reading a version number from the PAT information; and

determining if the read version number is different than a previous version number.

20. (Currently Amended) The computer program of claim 19, wherein the determining further comprising comprises:

determining if a repeater has been switched;

determining that channel information has been changed, ~~if~~ when a repeater has not been switched and the read version number is different than a previous version number; and

determining that channel information has not been changed, ~~if~~ when a repeater has been switched and the read version number is different than a previous version number.

21. (Currently Amended) The computer program of claim 18, wherein ~~the step of~~ storing a recent version of the channel information ~~if~~ when it is determined that the channel information has been changed comprises:

starting a program association table (PAT) parsing;

determining whether a present PAT parsing is an initial PAT parsing;

storing information on each channel in ~~a~~ the first data base to form ~~a~~ the first channel list, ~~if~~ when it is determined that the present PAT parsing is an initial PAT parsing; and

clearing the first channel list, and storing the recent version of the channel information in ~~a~~ the second data base, to form ~~a~~ the second channel list, ~~if~~ when it is ~~found~~ determined that the present PAT parsing is not an initial PAT parsing.

22. (Currently Amended) The computer program of claim 21, wherein ~~the step of~~ updating the channel information comprises:

initiating a program map table (PMT) parsing;

determining whether a present PMT parsing is an initial (PMT) parsing;

storing PMT information in the first data base, and providing a PMT completion signal, ~~if~~ when it is determined that the present PMT parsing is an initial PMT parsing;

~~if~~ when it is ~~found~~ determined that the present PMT parsing is not an initial PMT parsing, storing PMT information in the second data base;

~~comparing the first channel list with the second channel list to check added or canceled channels;~~

updating the channel information upon completion of the comparison of the first channel list and the second channel list; and

providing a PMT completion signal.

23. (Currently Amended) The computer program of claim 22, ~~further comprising~~ wherein the method includes providing a program guide message (PMM) information processing command after storing the PMT information in the first data base.